IN THE CLAIMS

Please amend the claims as follows:

Claims 1-2 (Canceled).

Claim 3 (Currently Amended): ~~The semiconductor radiation detector of claim 2, wherein~~ A semiconductor radiation detector comprising a substrate of Si or GaAs, and a CdTe or CdZnTe growth layer laminated and formed on a surface of the substrate by the MOVPE method, wherein

the growth layer is an active layer for incident radiation,

the Si or GaAs substrate is an N-type of low resistance,

the CdTe or CdZnTe growth layer is a P-type of high resistance, and

a thin CdTe or CdZnTe intermediate growth layer of an N-type of low resistance is provided between the Si or GaAs substrate and the CdTe or CdZnTe growth layer.

Claim 4 (Currently Amended): The semiconductor radiation detector of claim 3, wherein grooves extending from [[the]] a surface side of the growth layer to the Si or GaAs substrate are provided by cutting means, [[and]] resulting in the semiconductor radiation detector being separated into multiple unit elements in a two-dimensional arrangement.

Claim 5 (Currently Amended): The semiconductor radiation detector of claim 3, wherein multiple surface electrodes or Schottky electrodes are provided on the surface side of the growth layer of the semiconductor radiation detector, and guard ring electrodes are provided so as to surround the surface electrodes or Schottky electrodes.

Claim 6 (Currently Amended): The semiconductor radiation detector of claim 3, wherein the low resistance growth layer at the surface side is divided into multiple small regions, and arranged in a two-dimensional layout, and in the small regions, or in small regions of [[the]] Schottky electrodes ~~electrode~~, high voltage is ~~can be~~ applied in between a main small region at a specified position and plural peripheral small regions that surround the main small region.

Claim 7 (Currently Amended): ~~The semiconductor radiation detector of claim 1, wherein~~ A semiconductor radiation detector comprising a substrate of Si or GaAs, and a CdTe or CdZnTe growth layer laminated and formed on a surface of the substrate by the MOVPE method, wherein

the growth layer is an active layer for incident radiation,

the Si or GaAs substrate is a P-type of low resistance, and

the CdTe or CdZnTe growth layer is formed by laminating [[the]] a P-type layer of high resistance at a Si or GaAs substrate side and [[the]] an N-type layer of low resistance at a surface side.

Claim 8 (Currently Amended): The semiconductor radiation detector of claim 7, wherein between [[a]] the Si or GaAs substrate and the CdTe or CdZnTe growth layer, a thin CdTe or CdZnTe intermediate growth layer of a P-type of low resistance containing arsenic is provided.

Claim 9 (Currently Amended): The semiconductor radiation detector of claim 8, wherein instead of the N-type layer at the surface side of the CdTe or CdZnTe growth layer, a Schottky electrode is provided.

Claim 10 (Currently Amended): The semiconductor radiation detector of claim 7, wherein instead of the N-type layer at the surface side of the CdTe or CdZnTe growth layer, a Schottky electrode is provided.

Claim 11 (Currently Amended): The semiconductor radiation detector of claim 7, wherein grooves extending from the surface side of the growth layer to the Si or GaAs substrate are provided by cutting means, [[and]] resulting in the semiconductor radiation detector being separated into multiple unit elements in a two-dimensional arrangement.

Claim 12 (Currently Amended): The semiconductor radiation detector of claim 7, wherein multiple surface electrodes or Schottky electrodes are provided on the surface side of the growth layer of the semiconductor radiation detector, and guard ring electrodes are provided so as to surround the surface electrodes or Schottky electrodes.

Claim 13 (Currently Amended): The semiconductor radiation detector of claim 7, wherein the low resistance growth layer at the surface side is divided into multiple small regions, and arranged in a two-dimensional layout , and in the small regions, or in small regions of [[the]] Schottky ~~electrode~~ electrodes, high voltage ~~can be~~ is applied in between a main small region at a specified position and plural peripheral small regions that surround the main small region.

Claim 14 (Currently Amended): A manufacturing method of a semiconductor radiation detector comprising ~~a Si substrate, and a CdTe or CdZnTe growth layer laminated~~

~~and formed on a surface thereof by the MOVPE method, using the growth layer as an active layer for incident radiation, wherein the~~ the following steps:

a Si substrate is placed in a high temperature reducing atmosphere,

a GaAs powder[[,]] or GaAs crystals are decomposed,

arsenic is deposited on the Si substrate, and

[[the]] a CdTe or CdZnTe growth layer is laminated and formed on the arsenic-deposited surface of the Si substrate.

Claim 15 (Original): The manufacturing method of the semiconductor radiation detector of claim 14, wherein the Si substrate is an N-type of low resistance, and the CdTe or CdZnTe growth layer is a P-type of high resistance.

Claim 16 (Original): The manufacturing method of the semiconductor radiation detector of claim 15, wherein between the Si substrate and the CdTe or CdZnTe growth layer, a thin CdTe or CdZnTe intermediate layer of an N-type of low resistance is provided.

Claim 17 (Currently Amended): The manufacturing method of the semiconductor radiation detector of claim 14, wherein the Si substrate is a P-type of low resistance, and the CdTe or CdZnTe growth layer is formed by laminating a P-type layer of high resistance at the Si substrate side and an N-type layer of low resistance at the surface side.

Claim 18 (Original): The manufacturing method of the semiconductor radiation detector of claim 17, wherein between the Si substrate and the CdTe or CdZnTe growth layer, a thin CdTe or CdZnTe intermediate layer of a P-type of low resistance containing arsenic is provided.

Claim 19 (Currently Amended): The manufacturing method of the semiconductor radiation detector of claim 18, wherein[[,]] instead of the N type layer at the surface side of the CdTe or CdZnTe growth layer, a Schottky electrode is provided.

Claim 20 (Currently Amended): The manufacturing method of the semiconductor radiation detector of claim 17, wherein[[,]] instead of the N type layer at the surface side of the CdTe or CdZnTe growth layer, a Schottky electrode is provided.

Claim 21 (Currently Amended): The manufacturing method of the semiconductor radiation detector of claim 14, wherein grooves extending from [[the]] a surface side of the growth layer [[side]] to the Si substrate are provided by cutting means, resulting in the semiconductor radiation detector being ~~so as to be~~ separated into multiple unit elements in a two-dimensional arrangement.

Claim 22 (Currently Amended): The manufacturing method of the semiconductor radiation detector of claim 14, wherein multiple ~~two-dimensional~~ surface electrodes or Schottky electrodes are provided on the surface side of the growth layer [[side]] of the semiconductor radiation detector, and guard ring electrodes are provided so as to surround the surface electrodes or Schottky electrodes.

Claim 23 (Currently Amended): The manufacturing method of the semiconductor radiation detector of claim 14, wherein the low resistance growth layer [[of]] at the surface side is divided into multiple small regions, and arranged in a two-dimensional layout , and in the small regions , or in [[the]] small regions of Schottky electrodes, high voltage is applied

in between a main small region at a specified position and plural peripheral small regions that surround the main small region.